REMARKS

The present application was filed on September 15, 1999 with claims 1-6. In the outstanding Office Action dated July 28, 2004, the Examiner has: (i) objected to claims 4-6; (ii) objected to the drawings; (iii) rejected claim 1 under 35 U.S.C. §112, second paragraph; and (iv) rejected claims 1-6 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,314,434 to Shigemi et al. (hereinafter "Shigemi"), in view of U.S. Patent No. 5,870,545 to Davis et al. (hereinafter "Davis").

In this response, claims 1 and 4-6 have been amended in an effort to address the Examiner's objections to the claims and the §112 rejection. Additionally, claims 7-10 have been added. Applicants traverse the objection to the drawings and the §103 rejection for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

The Examiner has objected to claims 4-6, contending that these claims are written in improper multiple dependent format (Office Action; page 2, paragraph 3). In response, Applicants have amended claims 4-6 in a manner which is believed to address the objections to the claims. Specifically, these claims have been rewritten into proper multiple dependent format. Accordingly, withdrawal of the objections to the claims is respectfully solicited.

With regard to the objection to the drawings, the Examiner contends that a feature of claim 1, namely, "said timed-evaluation-step is continuing the processing to start said target-activity even if not all truth-values of said incoming control-connectors have been posted yet," is not shown in the drawings (Office Action; page 2, paragraph 4). Applicants respectfully disagree with this contention. Applicants submit that the time-dependent evaluation of start conditions feature recited in claim 1 is depicted generally as the "Start Condition" block 103 in FIG. 1. This block functions, at least in part, to evaluate truth values of all incoming connectors (Specification; page 17, lines 2-4; FIG. 1). The timed-evaluation step feature, wherein the processing continues to start the target-activity even if not all truth-values of the incoming control-connectors have been posted yet, is clearly described in the specification, at least at page 19, lines 15-23. Accordingly, withdrawal of the objection to the drawings is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph. Specifically, the Examiner contends that there is insufficient antecedent basis for the limitation "the truth value" in

line 8 of claim 1 (Office Action; page 3, paragraph 3). In response, claim 1 has been amended in order to provide proper antecedent support for all elements recited in the subject claim. Accordingly, withdrawal of the §112 rejection is respectfully solicited.

Claims 1-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shigemi, in view of Davis. With regard to independent claim 1, the Examiner acknowledges that Shigemi fails to disclose a timed-evaluation step which continues the processing to start the target-activity even if not all truth-values of the incoming control-connectors have been posted yet, as required by claim 1 (Office Action; page 5, paragraph 1). The Examiner also acknowledges that Shigemi fails to disclose "using Boolean values as truth-values" (Office Action; page 5, paragraph 1). However, the Examiner contends that Davis teaches "concurrent processing of activities (col. 14, lines 2-8)" and "using Boolean values to control processing of the activities (col. 12, lines 52-60, col. 12, lines 44-51)" (Office Action; page 5, paragraph 1), and that it would have obvious to modify Shigemi in the manner taught by Davis to obtain the claimed invention. Applicants respectfully disagree with these contentions.

Applicants respectfully assert that the recited combination of Shigemi and Davis fails to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143. As set forth therein, M.P.E.P. §2143 states that in order to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation . . . to modify the reference or combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." All three of these basic criteria must be met in order to sustain a *prima facie* case of obviousness.

First, Applicants assert that there lacks the requisite motivation or suggestion, either in the references themselves or in the knowledge generally available to one skilled in the art, to combine or modify the teachings of Shigemi in view of Davis to arrive at the claimed invention. Shigemi discloses a data management system for processing structured data objects while adaptively dealing with their changes (Shigemi; column 2, lines 42-44), and Davis teaches a system for performing flexible workflow process compensation in a distributed workflow management system (Davis; column 1, lines 37-40). Applicants assert that Shigemi and Davis are directed to different fields of art, seek solutions to entirely different problems, and, as such, "particular findings must be made

as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination" (*In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); emphasis added).

It is well-settled law that "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original). Moreover, in order to avoid the improper use of a hindsight-based obviousness analysis, particular findings must be made as to why one skilled in the relevant art, having no knowledge of the claimed invention, would have selected the components disclosed by Shigemi and Davis in the manner claimed (*See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)). The Examiner's conclusory statements that it would have been obvious to one of ordinary skill in the art to include the features of Davis in the system of Shigemi does not adequately address the issue of motivation to combine references. Simply stating that the features of Davis may be included in the system of Shigemi "because this allows for atomic execution and full or partial synchronization" (office Action; page 5, paragraph 1), does not address why this feature would be desirable, so as to provide the necessary motivation for such combination. "It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to '[use] that which the inventor taught against its teacher.'" *In re Sang-Su Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002) (quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)). Moreover, the Examiner fails to show how such features of Davis may be combined in the system taught by Shigemi, so as to provide a reasonable expectation of success of the proposed combination, as is necessary to sustain a *prima facie* case of obviousness.

For at least the above reasons, a *prima facie* case of obviousness has not been established. "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination"(*In Re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990)). The prior art of record provides no such teaching, suggestion, or incentive supporting the combination of Shigemi and Davis.

Even assuming, *arguendo*, that the Shigemi and Davis references can be combined, Applicants submit that the proposed prior art combination fails to disclose all of the features set

forth in claim 1. As stated above, and as acknowledged by the Examiner, Shigemi fails to disclose a timed-evaluation step which continues the processing to start the target-activity even if not all truth-values of the incoming control-connectors have been posted yet, as required by claim 1. Applicants assert that Davis fails to disclose at least this feature of the claimed invention, and thus fails to supplement the deficiencies of Shigemi.

Specifically, Davis does not disclose any mechanism for performing a timed-evaluation step. While Davis may disclose "rule nodes" that can "provide controlled process concurrency, including rendezvous points offering full or partial synchronization" (Davis; column 14, lines 6-8; emphasis added), Applicants assert that the process concurrency disclosed by Davis applies specifically to rule nodes, and not to the target-activity, as required by claim 1. The target-activity set forth in claim 1 represents a work item of the process and, as such, cannot be analogized to "rule nodes" as taught by Davis. If any analogy can be made between the claimed invention and the system taught by Davis, the target-activity recited in claim 1 may be comparable to the "work nodes 41, 43, 45, 46, 48, 50, 52, 54" disclosed in Davis (Davis; column 6, lines 52-54). However, Davis explicitly states that a work node "has at most one inward arc" (Davis; column 6, lines 39-40; emphasis added), and thus cannot address a primary problem to which the claimed invention is directed, namely, the evaluation of start-conditions associated with multiple incoming connectors to a given target-activity. As such, Davis clearly fails to teach or suggest a mechanism for evaluating start conditions for a given target-activity capable of handling multiple incoming connectors, and thus fails to disclose a timed-evaluation step which continues the processing to start the target-activity even if not all truth-values of the incoming control-connectors have been posted yet, as explicitly recited in claim 1.

For at least the reasons given above, Applicants submit that a *prima facie* case of obviousness has not been established, and therefore independent claim 1 is believed to be patentable over the prior art of record. Accordingly, favorable reconsideration and allowance of claim 1 are respectfully requested.

With regard to claims 2-6, which depend from claim 1, Applicants assert that these claims are also patentable over the prior art of record by virtue of their dependency from claim 1, which is believed to be patentable for at least the reasons given above. Furthermore, one or more of these claims define additional patentable subject matter in their own right. For example, claim 2 further

defines the timed-evaluation step as utilizing, as a starting point for the time interval, the point in time when a commencing activity is completed. The Examiner contends that Davis, at column 12, lines 18-26, 44-51, column 13, lines 10-20, and Figure 7, discloses such features of claim 2. Applicants respectfully disagree with this contention and submit that the Examiner incorrectly analogizes a "start work node 150" (Davis; column 13, lines 13-15) with the use of the completion of a commencing activity as the starting point of the associated time interval. Davis states that the start work node is merely a work node that "has no inward arc and is started when the process 149 begins execution" (Davis; column 13, lines 15-17). Furthermore, Davis fails to disclose any timed-evaluation-step which can be reasonably analogized to the timed-evaluation-step set forth in claim 2, and moreover fails to disclose using, as a starting point for the time interval, the point in time when the commencing-activity is completed, as required by claim 2.

For at least the above reasons, claims 2-6 are believed to be patentable over the cited prior art, not merely by virtue of their dependency from claim 1, but also in their own right. Accordingly, favorable reconsideration and allowance of these claims are respectfully requested.

With regard to newly presented claims 7-10, independent claims 7 and 8 are directed to a computer-based process management system and an article of manufacture, respectively, which are similar in scope to claim 1. Consequently, these claims are believed to be patentable over the prior art of record for at least the reasons stated above with respect to claim 1. Likewise, claims 9 and 10, which depend from claim 8, are also believed to be patentable over the prior art of record by virtue of their dependency from claim 8, which is believed to be patentable for at least the reasons given above. Furthermore, one or more of these claims define additional patentable subject matter in their own right. Accordingly, favorable consideration and allowance of claims 7-10 are respectfully solicited.

In view of the foregoing, Applicants believe that pending claims 1-10 are in condition for allowance, and respectfully request withdrawal of the §112 and §103 rejections.

Respectfully submitted,

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